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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,992	02/08/2002	Siegfried Mailaender	US 20 01 1067	2010

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EXAMINER

LEE, HWA S

ART UNIT PAPER NUMBER

2877

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/071,992	Applicant(s) MAILAENDER ET AL.	
	Examiner Andrew Hwa S. Lee	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10, 11 and 13-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-8, 10, 11 and 13-16 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/15/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

This Office Action is in response to Applicant's amendment of 12/15/04. By way of amendment, claims 9, 12, and 17 have been cancelled. Claims 1, 10, 11, 13, and 15 have been amended.

The Examiner deeply apologizes for the error in referencing Soloman and thanks the Applicant for identifying the typographical error.

The information disclosure statement filed 12/15/04 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 6, 8, 10, 11, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al (5,268,741) in view of Kersch et al (3,690,159) and Gonzalez et al (US 5,285,995).

Chou et al (“Chou” hereinafter) show an apparatus for calibrating a polarization independent optical coherence domain reflectometer comprising:

a fiber (5) connected to a DUT (9), thus having a connection;
an optical circuit (Figure 1) for providing an optical signal from and/or to the DUT via said fiber connection;

Chou does not show what or how the elements of the apparatus are held or packaged.

Kersch et al (“Kersch” hereinafter) show a holographic interferometer for producing a hologram of a test specimen having all the elements of the interferometer including the test specimen held on a heavy iron plate (18) which is “suitably isolated from vibration.” At the time of the invention, one of ordinary skill in the art would have mounted the interferometer of Chou on a heavy iron plate in order to mount and secure the DUT (thus having a DUT holder) and components of the apparatus and also in order to shield the interferometer and DUT from vibration (shielding against mechanical noise).

Kersch however does not show how the heavy iron table is “suitably isolated from vibration” Gonzalez et al (“Gonzalez” hereinafter) shows an optical table with an active vibration canceling system. At the time of the invention, one of ordinary skill in the art would have used the table with the active vibration canceling system in order to further isolate the heavy iron plate (optical table) of Kersch that supports the interferometer of Chou. The skilled would have recognized that the heavy iron table would not completely isolate the interferometer of Chou from vibration and that the use of the vibration canceling system of Gonzalez would help even more to reduce vibration.

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2. With regards to claims 2-4, Kersch teaches that the iron plate is heavy thus suggesting to one of ordinary skill in the art that the iron plate is substantially heavier than the optical circuit..

3. With regards to claim 6, since Kersch shows pedestals holding the optical elements on the heavy iron table, it would be obvious for the skilled artisan to also use pedestals to hold the optical elements of the interferometer to prevent the elements from moving and optical misalignment.

4. With regards to claim 8, the optical circuit of Chou is an interferometer.

5. With regards to claim 10, since the DUT would be mounted on the heavy iron plate as discussed above, the heavy iron plate would provide at least a partial shielding of the DUT against mechanical noise.

6. With regards to claim 11, since the DUT would be mounted on top of the heavy iron plate, the DUT holding device would also be outside the heavy iron plate.

7. With regards to claim 13, Official Notice is given that the use of resilient and plastic members for damping and absorbing mechanical vibrations is well known and on of ordinary skill in the art would have been motivated to use rubber and/or plastic since a skilled artisan would recognize rubber and plastic materials is lower in cost than the active vibration canceling

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system of Gonzalez which has more expensive pneumatic/electromagnetic suspension devices and accelerometers. Please see Yeung et al as applied to claim 16 below.

8. With regards to claim 14, Chou does not disclose that any of the components provide a substantial amount of vibration.

9. With regards to claim 15, Chou shows an optical signal source (1) and an optical receiver unit (12).

10. Claims 5, 7 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chou , Kersch, and Gonzalez as applied to claim15 above, and further in view of Yeung et al (US 4,921,348).

Chou, Kersch, and Gonzalez do not disclose a rubber sheet. Yeung et al show system for obtaining spatial and temporal plume information wherein the optical components are mounted on an optical table padded with a sheet of rubber. At the time of the invention, one of ordinary skill in the art would have lined the heavy iron plate with a sheet of rubber Yeung teaches that the rubber sheet reduces noise created by mechanical vibrations (column 3, lines 60+), thus having an upper casing (rubber sheet) and a lower casing (heavy iron plate). The examiner recognizes that the optical components are mounted inside the upper and lower casing and that the DUT is mounted on top, outside of the upper casing, however, the claims as presently presented are broad enough such that the prior art anticipates the claim language.

Response to Arguments

Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Hwa S. Lee whose telephone number is 571-272-2419. The examiner can normally be reached on Tue-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Andrew Hwa Lee', is positioned above the printed name.

Andrew Hwa Lee
Primary Examiner
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